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Publications



ADVISORY COMMITTEE  
ON  
**RECONSTRUCTION**

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**III. PUBLICLY-FINANCED  
CONSTRUCTION PROJECTS**

Final Report of the Subcommittee

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September 24, 1943



OTTAWA  
EDMOND CLOUTIER  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1944







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(ADVISORY COMMITTEE

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# (RECONSTRUCTION)

[ Reports of subcommittees. ]

## III. PUBLICLY-FINANCED CONSTRUCTION PROJECTS

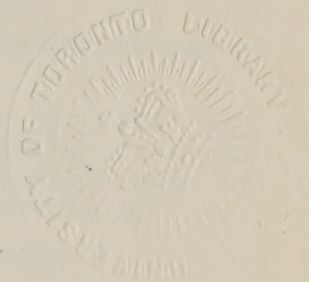
Final Report of the Subcommittee

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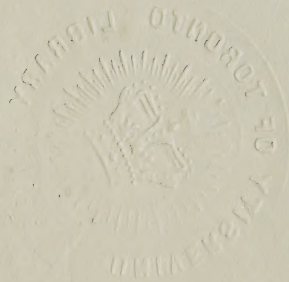
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The reports of the Advisory Committee on Reconstruction consist of a Committee Report and reports by Subcommittees under the following titles:—

- I. Agricultural Policy.
- II. Conservation and Development of Natural Resources.
- III. Publicly Financed Construction Projects.
- IV. Housing and Community Planning.
- V. Post-war Employment Opportunities.
- VI. Post-war Problems of Women.





### III. SUBCOMMITTEE ON PUBLICLY-FINANCED CONSTRUCTION PROJECTS

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#### FINAL REPORT

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##### *Terms of Reference*

To study the extent to which a carefully formulated program of construction projects may contribute to the national welfare of the Dominion of Canada, as well as provide employment opportunities during the post-war period. To report to the Committee on Reconstruction regarding the way in which such a program may be most effectively organized in advance of the termination of hostilities.

##### *Membership*

K. M. Cameron (Chairman); deGaspe Beaubien, C. B. Jackson, George S. Mooney, Gilbert G. Murdoch, F. W. Nicolls, Arthur Surveyer\*, D. M. Stephens\*, C. R. Young. Dr. L. C. Marsh (Research Adviser); J. E. Mackay (Secretary).

##### *Work of the Subcommittee*

1. A summary of the main topics covered by the deliberations and reports of this Subcommittee follows. (Section A.)
2. The consolidated report recently prepared covers the major topics with which the Subcommittee was concerned; more particularly the requirements for national co-ordinating machinery, and the immediate needs for financial assistance (for preparation of advance plans). (Section B.)
3. The most important supplementary documents include:—
  - (a) The standards and specifications in general terms which should be applied to all projects, whether local or otherwise, whether separate projects or group-programs; with some explanatory notes. (Section C.)
  - (b) Memorandum on the functions of a National Development Board. (Section D.)
  - (c) The first draft of a master classification applicable generally for the collation of a post-war works reserve. (Section E.)

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\* Invited to join the Subcommittee in addition to original members.



## A. MAIN TOPICS COVERED BY THIS SUBCOMMITTEE

### 1. *National Co-ordinating Agency*

Consideration of the nature of the Public Work Reserve in the United States, and the Ministry of Works and Planning in Great Britain; programming techniques in certain States and cities of the United States, and their relation to the Local Works Programming Office.

Recommendations for a co-ordinating body for Canada (National Development Board), designed in the first instance to work in collaboration with regional committees covering the whole country, providing channels for co-operation of provincial governments, municipal governments and voluntary bodies. Later reconsidered for operation on Dominion level in the first instance.

Emphasis throughout on the necessity of a parallel division of planning (a) technical and engineering features, etc. (b) budgetary or financial.

Proposal for a fund to be available to finance preliminary surveys, grants from this fund to be conditional upon certain programming techniques on a longer term basis being instituted.

### 2. *Criteria for Assessment and Selection of Projects*

Standard form designed to provide principal guidance on all aspects of particular projects requiring measurement or report: general, labour and employment, financial, technical, legal property, grants-in-aid.

### 3. *Broad Scheme of Classification*

A preliminary index has been worked out, for general application on a national or local basis.

No analysis has yet been made grouping projects according to most desirable methods of financing; mode of collaboration between different levels of government; extent of public or private control; or of priority.

An important distinction between short-term and easily-started projects, and longer-term and larger-scale projects has been emphasized, but not worked out. A special classification is needed on this point, and should at least be recommended for first consideration by a national co-ordinating agency.

### 4. *Special Projects*

i. Conservation projects covered by special Subcommittee.

ii. Housing, town planning, related community facilities. Studied in first instance through a Panel, later through comprehensive Subcommittee.

iii. Roads have been given some special but preliminary consideration only.

iv. Replanning of the flooded section of the St. Lawrence waterways considered as special case of post-war works development (report commissioned and completed).

v. Some special evidence on railways, shipping, civil aviation, etc.; no detail on size or content of available backlogs.

### 5. *Administrative Procedure*

Summary memorandum on essential tasks of national co-ordinating agency. The technique of programming and its implementation through a "double budget".



## 6. *Regional Collaboration*

The considerations counselling the need for extensive regional collaboration, both from governmental and voluntary sources, have been set out at several points in minutes and reports. Note has been taken of growing interest on the part of the provinces, and of municipal action in isolated cases, the general resolution of the Federation of Mayors and Municipalities, and several representations which have come directly to the Subcommittee. The local civic committees interested in town planning have mostly been referred to the Housing Administration of the Department of Finance. Attention has been drawn to the necessity in each province for specific enabling legislation permitting cities and municipalities to set up post-war reserve funds. (There is as yet no national uniformity on this important point). The working of the Municipal Improvements Act (1938) has been reviewed; and recommendation made that its scope be extended to facilitate provincial and municipal participation in post-war preparation.

Representation has been made several times on the interest among local groups in the planning of works projects and programs, the sources of voluntary help available if given reasonable direction; and the value of such bodies as the local branches of the Engineering Institute, the Royal Architectural Institute, etc., has been emphasized.

The integration of works programs on a regional basis—this applies to conservation of resources, to works programs, transport developments, and town planning, postulated as essential.

Division of the country into five main regions recommended (as also by Subcommittee on Conservation).

The importance of effective methods of land acquisition emphasized; necessary techniques are fully set out in two manuals issued by the National Resources Planning Board, (a) rural, (b) urban.

## 7. *Municipal and Provincial Finances*

Summary memorandum on this topic, and certain other documents endorsed by Subcommittee, give essentials of present situation. Principal conclusions (a) aggregate contribution of areas of government other than federal only a minority in proportion to the total, but (b) provincial and municipal collaboration essential to contribute the maximum mobilization of projects, providing element of local flexibility, and retain sense of local initiative.

## 8. *Essential Administrative Information*

i. Necessity of relating all programs to local employment situation. General assumption that Dominion Employment Service must provide up-to-date information on this point; but recommendation that national co-ordinating agency should give special attention to this information. (Parallel recommendation for housing programs being considered by Housing Subcommittee.)

ii. Technical components of projects. Partly covered by information sought through standard description form (Considerations for Evaluating Projects); also some special memoranda by Dr. O. J. Firestone, and experience of Public Work Reserve covered in article by Professor B. H. Higgins. Further studies recommended.

iii. Relation of initial survey and other costs to the total capital value of projects. Broad considerations have been given to this, but no detailed study. Examination of present scales of engineering fees, etc., indicate that 2½ to 5 per cent of the total value is required for necessary preliminary reports. A recent National Resources Planning Board summary indicates that a fund



equivalent to 3 per cent of the total projected program is required in advance, if plans are to be ready in time. The bearing of this on the recommendation for advance funds to ensure adequate mobilization before the war ends needs further emphasis.

#### 9. *Role of the Construction Industry in Relation to Post-war Programs*

i. The construction industry as a field of employment analysed in detail for the first time as a special study (Dr. O. J. Firestone).

ii. The supply of building labour in Canada; analysed in detail with reference to existing employment, construction workers in the forces, future apprenticeship (special study by Dr. O. J. Firestone).

#### 10. *Industrial Reconversion*

Various aspects of this considered, but more particularly those specifically involving construction work. Some evidence from National Construction Council, Lumber Men's Association, the construction industry generally. No survey of full factual situation; but memorandum making certain recommendations on fiscal and other policy.

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## B. ORGANIZATION OF A POST-WAR WORKS PROGRAM

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### I. Introduction

The terms of reference assigned to this Subcommittee when it was brought into operation are reproduced above. In carrying out this enquiry, special attention was given to certain questions which were particularly seen to be involved. These included:—

1. What standards should be applied in the study of specific projects for the purpose of determining their place in the program?
2. What specific machinery should be set up to co-ordinate the construction activities of the Dominion government, provincial governments, municipalities and private enterprises, so that a comprehensive program may be put into effect smoothly at the appropriate time?
3. What categories of construction projects should be established?
  - A. Dominion projects only?
  - B. Dominion-provincial projects?
  - C. Projects involving municipal participation?
  - D. Projects involving the participation of private enterprises?
4. In cases B, C and D of the preceding paragraph, to what extent, and upon what terms, should funds be made available by the Dominion government to finance such construction projects?
5. How should specifications be drawn and preliminary planning be carried out?



## II. The Necessity of a New Approach

It is essential to recognize at the outset that for reconstruction purposes a program of publicly financed employment measures must be conceived solely for its own special purposes. It must be a bold, enterprising, even enthusiastic program, unhampered by the formulae of previous ventures which are not appropriate. The experience of works projects as relief measures during the depression period of the "thirties" in Canada was, to say the least, disappointing. Reliance on more or less piecemeal utilization of the previously-used agencies and legislation is likely to foredoom the program to failure.

Simple and universal as the general concept of a public works program is, its organization and administration in practice is so difficult and intricate that there will be a strong tendency to fall back on precedents. When every allowance has been made for the efforts put into the various public works projects of the "thirties", and also such progress as was actually made in administrative co-ordination and efficiency it still remains true that Canadian works programming was inadequate on a series of counts.

(a) Co-ordination and planning. Lack of a single organizing agency, even within the sphere of the federal government; unevenness in the distribution, equality and scope of projects throughout the country; ineffectiveness of supervision in the face of the greatly varying levels of municipal and provincial administrations.

(b) Continuity. The emergency character of nearly all works; yearly appropriations from the federal government down, with resultant uncertainties and repeated flurries of provincial-municipal negotiation or recrimination at the beginning of each fiscal year; fluctuations in the volume of work which bore no relation to the total need, or even in some years to the normal construction season.

(c) Restrictions in the type and scope of projects undertaken. The great majority were dirt-moving jobs; at a later stage a principle which was more or less implicitly accepted, that all such works should be strictly non-competitive with private business, was much too rigidly interpreted.

(d) The type of employment provided. Overwhelmingly manual and unskilled labour; the almost universal practice of "rotation" gave only short spells of work to successive relays of men with doubtful effects on their morale and little improvement in their incomes.

(e) The aggregate volume of work and investment. In relation to the total amount of unemployment to the proportion of the unemployed cared for by direct relief only, or to total national income.

### ***The Requisites of a Reconstruction Program***

Prime considerations in devising the mechanism for a Reconstruction Works program are:—

(a) *Co-ordination.* The necessity of strong Dominion leadership is inescapable if the "controllability" of the program is to be ensured. It must to a very large degree be prepared in advance. The timing of the commencement and distribution of the works is of vital importance. Even the will to act is a factor in the calculations; the amount of economic dislocation may be extremely great, or a general "let-down" mood may have to be countered. The other requisites referred to below also hinge on a clear-cut direction being given. (It should not be forgotten also that some international planning of public works may be required, at least as between Britain, the United States and the Dominions.)



Such action on the part of the Dominion will constitute a clear and definite lead by the federal government in the field, will enable the planning of a federal works program to be initiated with practically no delay, will provide a means of gaining experience in this novel—in Canada—field, and will provide the enlargement of the field to comprehend the provincial and municipal, and other fields as developing circumstances permit of unified, concerted and co-ordinated action.

(b) *Effective Supervision.* This relates not merely to the well-recognized point (a) of preventing waste or misuse of public money and the "Treasury Board functions" in general. The importance of this is beyond question since millions of dollars will be involved. But (b) the projects must meet minimum standards in a number of respects. Further (c) the regional distribution of industrial dislocation and potential unemployment will be more complex than that of the "thirties". Finally (d) the details of at least a major proportion if not all of the projects must be cleared in advance so that the program is "ready to go" as soon as it is needed. All of these mean that an appropriate technical agency with the necessary powers must begin to function while the war is still on.

(c) *Criteria of selection and approval.* It is vital that selection be not made on purely legalistic grounds or that narrowly worded legislation lead to routine approvals and rejections. The relation of the projects to economic restoration and to social welfare in general must be constantly in mind. A new power plant in a strategic location might be worth a hundred road-making projects all over the country. Developments of housing, schools, hospitals, research stations, rural facilities might be aborted if local or other governmental bodies made their plans on the assumption that merely "stop-gap" or manual labour projects were needed. Even conservation measures which are relatively simple might be hampered from full effectiveness if limits appeared to be placed, e.g., on the use of certain equipment, or powers of land acquisition or land-use enforcement. Or, the corollary in the latter case is that a conservation project submitted for federal subsidy should contain assurance of any necessary provincial legislation or municipal by-laws. To mention one of the more imaginative possibilities, a many-sided program devoted to transforming existing aviation resources to peace-time commercial and private-passenger uses, including continental and trans-Atlantic traffic of all kinds, might be of sufficient weight and impetus to galvanize the whole Canadian economy.

### ***Works Projects only Part of Total Reconstruction Program***

The organization of a reserve of works against the possibilities of dislocation and unemployment is only part, though an important part, of the task of domestic reconstruction. It should not be thought of as the only measure of preparatory action necessary. But, to quote from the basic memorandum of the Committee on Reconstruction, "a carefully planned program of publicly-financed construction projects must be developed as an integral part of Canadian reconstruction policy since, if a deep depression threatens to arise, prompt action would be necessary. The most significant contribution that such projects would make towards Canadian reconstruction is that they would provide additional employment opportunities at the very moment when serious unemployment threatened to arise because other sections of the reconstruction program were not being carried out rapidly enough."

The memorandum goes on to say, "If such projects are carefully planned, however, they can also contribute to the social welfare of the community and to its ultimate enrichment". At its best, in other words, the reserve of construction projects will be more than merely an anti-depression measure. Approached with imagination, and in a spirit of co-operative endeavour, it can become an inspiring national program for providing the equipment with which to "win the peace".



## **Timing**

Questions may be raised as to whether and when these means of alternative employment may be necessary at all. Will private industry not be able to make an adjustment without government aid? Will there be any serious depression as soon as the war is over? It is possibly true that a fund of public employment will not be needed *immediately* after hostilities cease. Most calculations assume some period of boom conditions as a result of the release of production and purchasing-power from wartime limitations, so that the possibility of a period of recession is thus removed for some time from the particular date on which the war ends. But the wise conclusion is that preparedness against the dangers of maladjustment in this period is more necessary rather than less, because of the difficulties of calculating whether recovery is being achieved or whether what is happening is merely a temporary reaction.

It would be unwise to assume that post-war depression may be postponed a little after the actual end of hostilities, and that there might be this much extra time for organizing a works reserve against it. In the first place, some immediate dislocation from the cessation of wartime production is inevitable. A situation in which, say, 50 or 60 per cent of the national income and working force is devoted to war purposes cannot be suddenly changed without immense possibilities of unemployment. Secondly, even if recovery develops rapidly, we do not know how shortlived the first stage may be. There are far fewer reasons than in the last post-war period (after 1918) for assuming a large fund of private expenditures held over from the war period, as the principal sustainer of immediate post-war markets. And, finally, a somewhat new but highly important consideration is that the boom itself may be considerably more under control if there are brought into existence now, both in private and in public fields, plans for the orderly undertaking of construction and re-equipment work as a substantial long-term program.

## ***A Dominion Works Reserve***

Directly related to the constitutional responsibilities placed on the Dominion government are construction and maintenance works not only capable of providing employment, but to form permanent assets for the bettering of social and economic life; not only in the neighbourhood or region where they are located but, collectively, in the country as a whole.

This applies not only to the activities associated with the furtherance of the development of the country through the several government departments, but in equal measure to those of related national agencies, the Canadian National Railways, the National Harbours Board, the Canadian Broadcasting Corporation, the Trans-Canada Airways, and the like.

The several departments of government, and the national agencies contain the necessary elements of organization so that they could, if so instructed, proceed forthwith to develop a Reserve of Works, of Dominion responsibility, for execution in the post-war period. The necessary instructions should be issued, and should contain any requisite authorization to enable the fullest possible planning to be completed up to the stage just short of actual execution of the project.

This requires that the Government Departments and Agencies be granted appropriations adequate for the development of surveys and investigations and the preparation of plans and specifications of desirable projects. It will also require relaxation of present restrictions on the employment of competent personnel so far as can be done without interference with the war effort. Only in this way may an adequate program be made ready to be put into operation in such places and at such times as are necessary to meet the situation, insofar as Dominion projects can be made to do so.



The Subcommittee on Construction Projects had already recommended as to criteria which should be applied for approval, and the type of information which would be necessary in preparing the submission for a project, or group of projects.

### **III. A Dominion Co-ordinating Body**

#### ***Construction Reserve Commission***

There is no unit available among existing governmental agencies, short of Treasury Board or the Cabinet itself which can serve as a central co-ordinating body. A new body, the Construction Reserve Commission\*, should be set up. It will be a new body because its functions are somewhat novel; but its existence as a separate body concentrated on a clearcut task is also important in signaling to the country at large, with very favourable effect, the adoption of this special piece of reconstruction policy.

#### ***Functions***

Its particular functions include the following:—

- (a) To co-ordinate in advance the programming of all types of construction within the control of the Dominion Government which, whether as deferred maintenance projects or new projects, can be reserved for the post-war period.
- (b) To examine the preliminary representations made by the several federal departments and agencies, and prepare therefrom, for consideration by the government recommendations as to what proposals might justifiably be further proceeded with in greater detail so as to produce a program well balanced as to social and economic benefit and employment possibilities. The "Considerations for Evaluating Projects" should be the guide in such examination.
- (c) To effect co-ordination of effort between a post-war construction projects program and programs of other federal agencies which may be set up to deal with other matters relating to the post-war program, having particular reference to development and utilization of natural resources, and to an advisory committee on timing (later herein proposed).
- (d) To organize such information and interpretation services as may be necessary to acquaint the public with the functions and facilities of the Commission.
- (e) To consider and report on such other matters related to a post-war construction program as may be referred to it by the government.

#### ***Constitution of the Commission and its Relation to other Federal Government Bodies***

The *Commission* itself should, in the interest of efficiency and smooth operation, be a relatively small body. A Commission of three persons is recommended, and the Commissioners, who would be appointed by the Dominion Government, should be chosen primarily for their technical qualifications. The Chairman of the Commission should be required to give his full time to its work.

The Commission should be directly responsible to the Minister of Finance. This recognizes that specific responsibilities of the several departments and agencies of government in their respective fields permit them to continue their functions without dislocation; minimizes, at this stage, the expenditure on the Commission; maintains the existing channels of contact with the public; and tends to make the Commission free in its functions as a co-ordinating medium.

\* In the succeeding text this title is changed to National Development Board in conformity with terminology adopted later. References to the Commission should be understood as applying to the Board.



The Commission might profitably be assisted by having recognized liaison officers, nominated by the departments concerned, assist it in reviewing departmental representations, in obtaining uniformity of method, and in securing such other assistance as the several departments could give in directions requested by the Commission.

In addition, to provide appropriate consultation and to give direct access to the Commission by federal departments, a special Departmental Panel should be set up, composed of the Deputy Ministers of all relevant Departments, or their nominees.

### ***Timing of Construction Measures***

It is recommended that the Advisory Committee on Economic Policy, in pursuance of its powers relating to post-war reconstruction (P.C. 608 of 23 Jan. 1943) take appropriate measures to ensure the collation and analysis of economic and statistical information indicative of the course of business and employment, and the other related phenomena of timing. Preferably, a small committee should be constituted of appropriate senior officers of the Bureau of Statistics, the Department of Finance, the Bank of Canada, etc., immediately, in order to review the most appropriate statistical indices, and effect methods of analysis or forecasting, so as to be ready before the war ends with systematic measurement of the course of events. Such a technical or advisory service would, of course, be important not only for the works program, but for all segments of total reconstruction policy. It is conceived of, however, as being particularly vital to the handling of the public construction program which is the principal *masse de manoeuvre* of economic policy in the period immediately after the cessation of war-time production.

### ***The Larger Field***

In considering Construction Projects in relation to the post-war period and the demobilization of members both of the armed forces and of the civilian workers, it is evident that there will be overlapping and duplication of effort, competition for means, financial, technical and otherwise of planning and execution, withholding of effort or planning, and general misdirection and confusion unless there is complete co-operation and collaboration, freely and faithfully given in the general interest between all levels and branches of government and private enterprise, under constructive leadership.

The problem is nation-wide. The war in all its military and civilian aspects is being waged for all the Dominion by the central government, and demobilization of both the armed forces and the civilian population is necessarily controlled for the same ends by the same central government. It is the inescapable duty of the Dominion to enlist the co-operation of the provinces, and, through them, of the municipalities, in preparing a program of construction projects in as complete detail as possible. The bounds of useful expenditure on construction projects is limited only by our imagination.

Collaboration would be most advisable also in deciding, according as developing circumstances indicate the need, where, at what time, under whom, and in what places the program or any parts of it should be put under way.

The Subcommittee is aware that the provinces, the municipalities and private investment are actively engaged in formulating their plans for post-war reconstruction, including construction projects as the main reliance for immediate action in event of a recession, and believe that these levels of government and private investment are not only prepared to discuss ways and means of concerted action, but await a lead by the federal government which will lead ultimately to such action.

The Subcommittee recommends that the federal government give such a lead without delay. Even when this is accomplished, there will remain a long



period of time necessary for proper compilation and investigation of projects and their planning, specially so when the supply of trained competent architects, engineers, and other investigators is at a minimum for service either with government or private enterprise.

The first step is to prepare a program. The extent of its application depends on other factors, and these in turn affect the ability of the several levels of government, and of private investment to finance the program as may be actually needed.

But it cannot be too frequently or too strongly emphasized that a construction project, to be of real value, and despite the best will in the world, demands complete preparation in all its technical, legal and financial details. There should be put in hand, concurrently with these, detailed consideration of all the factors which ultimately determine its acceptance, modification or rejection. Adequate appreciation of the time involved is generally lacking, as is that of the great value which initial expense in this complete preparation has in producing the maximum all-round benefit at the least final cost.

Construction is a most fluid and adaptable instrument or commodity. It can be made use of in small or large units to suit the circumstances of the locality or region where need develops; it can be adapted in form to the circumstances or need; it can utilize in large measure the local resources of labour, material and equipment; and when adequately planned to meet those needs, and to utilize the resources, by its contribution it becomes a major factor in the social welfare of the community and its ultimate enrichment.

#### IV. Components of a Works Reserve

In addition to the program of federal works, already dealt with in this report, there are other important groups of construction works which should form part of the total available programs organized for steady implementations in the reconstruction period. As in the Dominion field, deferred maintenance or improvement, extensions to old equipment, and new construction in each of the fields can form a valuable-essential- part of the whole.

The Subcommittee does not entertain the slightest doubt that in the provincial, municipal, and private investment fields there is any desire to withhold from the most constructive participation possible in the formation of measures to meet the post-war problem, or to rely on the federal government for the accomplishment of all and every measure. The Subcommittee, reaffirming its opinion already expressed, that the federal government is expected to give the lead in these matters, desires to re-emphasize that this report deals with the planning of the Construction Reserve, and not with the financial measures or arrangements involved in its ultimate accomplishment.

The other groups of construction or works projects which should form part of the total construction program are:—

A. Construction and related work undertaken by industry or private sources as part of their re-adaptation to peacetime conditions, or resumption of normal maintenance or expansion.

B. Projects of provincial governments, wholly financed from provincial funds.

C. Municipal projects wholly financed from local sources.

D. Provincial, municipal, or other projects in which some proportion of federal aid was extended in the total construction expenditure.

The Subcommittee has given consideration to all of these categories, and has no hesitation in recommending that policies should be sought to bring work from all sources on to a long-term program basis. In the recommendations



which follow it deals primarily with Categories B and C, in addition to Dominion projects as already dealt with. It deals with measures under Category D only insofar as recently existing measures of financial aid by the Dominion have been extended. It proposes to deal with Category A and Category D at a later date.

The Subcommittee has expressed the belief that provincial, municipal, and private investment co-operation in the planning of a co-ordinated post-war construction program can be obtained. It is in fact of vital importance to have effective and co-operative means of organizing works projects in local areas. The Subcommittee has accepted as a basic principle that appropriate decisions on very many projects cannot be taken without knowledge of all the circumstances in the locality affected. Choices from among alternative projects, where these are necessary, also must be made on the basis of local information.

After careful consideration of this matter, the Subcommittee recommends as the key machinery for the purpose, the setting up of five Regional Committees for the following areas: (1) The Maritime Provinces, (2) Quebec, (3) Ontario, (4) the Prairie Provinces and the Northwest Territories, and (5) British Columbia and the Yukon. It should be clearly understood that these Committees are not thought of as the only local machinery; but rather as the major co-ordinating body in each region for a series of possible groups. They would, in particular, be the five offices with which the central Commission would have direct and continuous contact. Other local contacts of all kinds would flow first into the offices of each Regional Committee.

It is proposed that the citizen members (as distinct from the technical members) of the Committee should serve in a voluntary capacity, with either reimbursement for out-of-pocket expenses or a *per diem* allowance. Two key members would be:—(a) The Chairman of the Committee, a man chosen primarily because of his local connections and general public standing. (In certain regions, it might be quite possible to find a man who could give a great deal of time to the task in a voluntary capacity, in others, it might be necessary to make the post a salaried one.) The Regional Chairman would be *ex officio* a member of a central Advisory Council, attached to the Construction Reserve Commission.

(b) The Regional Representative (who might alternatively be called the Regional Executive Officer). The qualifications of the Regional Representative should be primarily technical (economics, engineering, regional planning, conservation, etc.). He would act as the general adviser and liaison man so far as staff work was concerned. He would be a full-time employee of the federal government, spending some part of his time in Ottawa.

Other members of the Committee would be:—(a) nominees of the provincial governments, in whatever capacity they considered most desirable; and (b) nominees of representative organizations such as Engineers' Associations, Architects' Associations, Construction Associations, Boards of Trade, etc. Obviously, it would hardly be possible to get all representatives of the latter type on to the main Regional Committee. The procedure recommended is that these groups throughout the country should be invited to form local committees to consider proposals for desirable post-war construction projects and to prepare specifications for these as far as possible; the chairman of these committees would then be invited to become members either of the main Regional Committee or (in some cases) of the provincial committee or sub-regional committee connected with the main Regional Committee. There should be room for considerable variety and flexibility in the composition of local committees, having regard to different conditions in different provinces and areas.

On the technical side, there should be full provision for utilizing the services of engineers and similar officials of the provinces and municipalities, whether in an advisory capacity or otherwise. It would be eminently desirable also to

arrange that the regional representatives of the federal department of Public Works (and of possibly some other appropriate departments) be made advisory members of the Regional Committees or their staffs.

It is possible that in the Maritime Provinces and in the Prairie Provinces each of the three provinces might wish to set up their own Committees, working in co-operation with the co-ordinating Regional Committee. Where a province has already set up some machinery dealing with reconstruction planning specific consultation would, of course, be necessary in the matter of forming the Regional Committee. The initiation of the whole construction reserve organization would desirably be preceded by a conference with Provincial Premiers or their representatives.

## V. Financial Assistance

It is assumed that it is not part of the purpose of the Construction Reserve Commission to execute the actual carrying out of works. This would be the function, e.g., in the case of the federal government, of the departments which normally undertake the construction work.

It is not proposed that any funds should be set up for grants-in-aid for actual construction. There is a growing interest throughout the country in making preparations of an employment-providing nature for the period of post-war dislocation. The existence of Regional Committees having liaison with the Construction Reserve Commission, through their Chairmen on the Advisory Council, and on the technical side through the Regional Representatives, will serve as a further stimulus to the planning of these programs.

Other measures should be considered, however, if the aid and interest of the Dominion Government is to be made stronger and more specific. Two key measures are recommended:—

### (a) *A Fund for the Financing of Initial Surveys and Preparation of Plans*

It is reasonable to expect that projects which are solely initiated by a province or a municipality should be financed by them for all the stages preceding actual construction. But there will in all probability be a number of desirable projects requiring some preparatory work which will not be within the financial competence of the local government. This is more particularly true of projects which will be outside the general routine of public works, and many of the projects most relevant to post-war reconstruction will be of this character (e.g. properly planned conservation measures on a regional basis, rehabilitation of wartime industrial areas, readaptation of training bases, city and suburban development work which is needed for the proper location of housing estates, etc.). The provision of federal funds to ensure the completion of these critical initial stages would be of strategic importance. (It is possible that some part of the planning and survey fund might be reimbursed by being charged to the total cost of the complete works at some later date, but it is doubtful whether this should be a major consideration).

It is the considered view of the Committee that the most effective arrangement by which a federal fund for initial preparations could be utilized for provincial, municipal and possibly other projects, would be by means of a special agreement made between the Commission and the governmental body concerned. This agreement should specify that, in return for the assistance received from the federal government in the stages of the project prior to that of actual construction, the other contracting party agrees:—

- i. *That the actual capital construction shall be budgeted in advance for a period of years (in conformity with the general procedure referred to above);*



- ii. *To reserve the actual beginning of work on the site until the time recommended by the Commission as being the most desirable in the interests of national employment and economic stability.*

**(b) *A Capital Programs Advisory Service***

The logical step which should be taken along with the physical planning of projects is the planning of their financing. The function which should therefore be developed to the utmost, and which would almost certainly have to proceed in the first instance from federal sources, is that of guidance and assistance in getting the capital works of provinces and other governmental bodies on to a systematic long-term basis.

The essential techniques of this procedure are—

- i. a scheduling of all undertakings which would normally be built by the government concerned within a given period.
- ii. the scheduling of all revenues available for the methods of financing required.
- iii. a systematic selection and planning of the total program so that the program in the first year of operations would be exactly known.

The detailed techniques involved have been worked out in the United States in recent years through a number of experimental projects in some of the States and cities and have more recently been co-ordinated through the National Resources Planning Board, which maintains a number of consultants operating from the Local Works Programming Office in Washington. Before this service could be satisfactorily set up for the Canadian situation, some survey of existing procedures and plans in the Canadian provinces and municipalities, and consultation with some United States authorities, might be necessary.

Preferably, this consultative or guidance service should be performed by the Regional Representatives, and in any case it would be necessary for them to become familiar with these techniques in the course of performing their duties. There are few persons with specialized knowledge in this field, however, and it might be more effective in the first instance to have one or more consultants on capital works budgeting operating from the Ottawa office.

## **VI. Dominion Aid Measures at Present in Existence**

The Municipal Improvements Assistance Act (1938), and the National Housing Act, were two measures enacted to provide federal financial aid in the fields they dealt with. The first named has been suspended; the second, still operative, has required amendment, and the impact of war-time conditions has greatly curtailed its operation. It would be valuable, should the co-operative action of provinces, municipalities and private investment be secured, to enlist their interest in revival, and where advisable extension of these measures in the original fields, and the possibility of application of the governing features, particularly of the Municipal Assistance Act, to other fields of self-liquidating endeavour.

Municipalities should be encouraged, with financial assistance if necessary, and under governmental guidance to make a complete review of municipal governmental functions and to consider the development of new practices, to study specific problems and subjects; plans for highway approaches to the city and connections with the central business district; the revision of the zoning ordinance and the building code, if found desirable, and the establishment of a housing code; methods of valuing property for taxation purposes; the problem of the central business district; parking, and the need of municipal parking lots;

maintaining the tax structure of the city; improvement of mass transportation; the relation of the municipality to its suburbs and environs; the cause of blight and depreciation, and other related activities.

## **VII. Subsidiary Matters**

### ***Total Volume of Projects Required***

The first argument for a special effort to secure the inclusion of provincial and local governments is the challenging size of the total requirements in employment projects. Suppose that only a one-million dollar program (in the first post-war year) is sufficient to compensate for the reduction of wartime expenditure—a moderate enough assumption in view of the fact that war expenditure may be of the order of \$2,500,000,000 to \$3,000,000,000. The implications of this can be viewed in two ways. It might be argued that against such a large sum the municipal and provincial contributions (which might amount to \$200,000,000) are too small a contribution to warrant any special assistance. It is more reasonable to assume, however, that the mobilization of every conceivable contribution will be required. For a variety of reasons—not all of them good ones—it may be much harder to justify peacetime investments than wartime expenditures; and even an \$800,000,000 works program vastly exceeds any set of projects engineered from Dominion sources in other periods of emergency.

Probably the program will be easier to visualize when it is known how much may be anticipated from housing and conservation projects (both of which involve some federal-provincial collaboration). But in the meantime the only safe way is to plan on the largest possible scale.

All reasonable calculations of the total capital works projects of provincial and local governments make it evident that taken together they would constitute only a portion of the great volume of expenditure needed to form an effective counterpoise against the reductions of wartime expenditure of the order of one or two billion dollars, once an armistice is proclaimed. The program which has to bear the main brunt of the situation, therefore, might as well be proceeded with first.

### ***The Technical as Distinct from the Financial Aspects of Program Preparation***

The Subcommittee did not envisage that funds for initial surveys and plans would be granted without specific commitments on the other account, i.e., to undertake the preparation of a capital budget for some reasonable period (at least three, preferably five or six years). The experience of that section of the National Resources Planning Board in the United States which has developed works programming procedures among local governments on a six-year basis has been that, once instituted, the procedure has recommended itself, and the Board reports a shortage of consultant officials in relation to the requests now made for advice in setting up such long-term capital budgets.

It is possible that the Subcommittee is too optimistic in assuming that the grant for initial preparations could be clearly made dependent on the adoption of long-term capital budgeting. Much would depend upon some kind of an educational program which would make clear the merits and advantages of this type of preparation. It was assumed, however, that this particular technique of combining preparatory assistance and advisory services would not be fitted into the existing governmental structure without appropriate educational activity.

It is also assumed that it will be made completely clear that the projects selected for assistance in this form will be those in which the local governments



are sufficiently interested to plan for the construction costs being found completely from their own revenues. It should be easy enough to clarify this intention, and to make it clear that the purpose of the fund is solely to accelerate the initial planning—an expression of the urgency of having a national fund of works projects ready, not an indication in advance that the Dominion would have to assume the whole financial task.

### ***The Value of having Local Programs Organized by Local Authorities***

It is obvious that since almost every project must have a local site that local authorities must be consulted. It is even better, however, if they can be stimulated to make their own evaluations, and relate competing or complementary projects to one another and build up a balanced program. The advisory service of the National Resources Planning Board has apparently been able to operate in this direction, quite consistently with confining attention only to projects for which state or local governments are providing (or at least foreseeing as far as possible) their own finances.

The long-term budgeting technique goes a long way towards satisfying two objectives: (i) that all projects planned in a given region will be carefully selected and evaluated; (ii) that they will be within the capacity of the region to finance. The fact should be faced, however, that it gives a stronger guarantee of soundness and efficiency if the urgency of events requires a special federal contribution after all.

The question of sites, which includes also the question of site, town and regional planning, has already been mentioned. Presumably it is possible for the Dominion government to insist that appropriate planning of sites be part of every federal project. But it will have to be considered how the necessary powers are to be secured for all the areas concerned; and, incidentally, how the site and regional planning can best set a good example to other governmental bodies. These problems could perhaps be met, but they seem the hardest of all those which have to be overcome if no special provision is made for provincial and local collaboration at the outset.

A very large proportion of the total available projects and programs are likely to be in the field of conservation and natural resources development. By far the greater amount of these resources are under provincial jurisdiction. There may be an answer to this if conservation projects are co-ordinated nationally through a separate body, and come to this body through appropriate provincial or regional agencies. All that would be needed would be a satisfactory method of clearance between the National Development Board and the central conservation body at the Dominion level.

Housing programs must unquestionably form a large proportion of total building programs in the post-war period. But successful housing programs depend, perhaps more than any other kind of works project, on Dominion, provincial and municipal collaboration. This again may not raise any special problem if the best procedure for housing is considered to be a separate authority for Dominion co-ordination.

The problem of relating housing projects, conservation projects, and other public works, has to be met, of course, whether the National Employment Board is the central mobilizing agency for projects at all levels of government or at the Dominion level only. The advantage is that if it were the former, it would presumably be easy to go much further in the stimulation and encouragement of local planning and co-ordination.

If nothing but 100-per-cent federal projects were prepared, there would still be vital need for information on the comparative development (in terms of capital facilities, etc.) of the various regions of the country if there is to be any rational basis for decision as to where federal projects will be initiated.

It would be far better, however, to evolve a more intimate collaboration in future building development programs, for which one could hope if regional committees were carefully selected and "nursed" in the initial stages.

(Employment and industrial information could, of course, be secured through Dominion sources; it would be incorrect to argue that unless we have regional committees we cannot tell the relevant urgency of undertaking programs from the point of view of giving employment. Assessing the desirability of projects from the point of view of their economic and social usefulness, and in relation to other existing resources and of capital facilities, however, is another matter.)

A special aspect of this problem which must inevitably arise in the post-war period is the unequal development, and the unequal capacity to finance readjustments or new developments, throughout the various regions of Canada. If provinces and municipalities are forced to rely on their own resources, this will probably produce good results from those governments whose financial situation has improved since the war, but it will not stave off the demand for special assistance from areas most heavily hit during the depression years. In the long run, it might be better to take some initial steps now in fostering a closer partnership in the planning of whatever resources are available or possible in both the favoured and unfavoured areas of the country.

### ***Other Related Observations***

Works or construction projects in themselves are not a means of continuing employment or other benefit unless projected to the ultimate and designed purpose that beneficial use may and will be made of them.

When adequate care in study and planning is given a project in advance of construction, and its final conception is related to the present and to reasonable and warranted future requirements, its merits as a continuing asset inspire confidence.

It has been said that the purpose of a post-war Construction Reserve is to meet probable unemployment needs, and add at the same time to the social and economic betterment of the country and its people. If we examine these considerations, we deduce certain implications not at first sight apparent, but of undoubted significance and value.

In regard to providing employment, a project does this directly "on-site" or on the job itself. But it provides in "off-site" labour almost as much employment as that engaged on the work, for the materials used in the construction, the furnishings or equipment required for the plant or project and their transportation to the site are essentially labour-produced. And there is further the consideration that the wages earned, both "on-site" and "off-site" are expended in the purchase of the workers' requirements, infinite in variety, and again employment giving.

It is further observed that even if other measures which may be affected prevent the occurrence of periods of recession, the effort expended on the preparation of a program of construction projects will in no way be wasted. The projects forming the program will be required as fully under those circumstances as in any recession periods, the difference being that they can be more readily financed owing to the greater amount of production and consequent employment, and may be carried out with less regard solely to their employment providing means. The general situation will as fully demand their accomplishment.

In the social betterment field, this is fully as true, and is particularly recognizable in the sphere of urban and rural housing and planning. There is increasing recognition of the inadequacy, if not almost total lack of these in the presently existing communities, and the consequent detriment to physical and



cultural standards of Canadian family and community life. The present offers an opportunity unequalled in our history, and which may not recur in anything like the present measure, to develop a truly Canadian aspect of community and family life, to provide community centres, to enhance pride in home-ownership with the development of designs for homes of acknowledged Canadian types of architecture, and this can apply in as full measure to other buildings and structures, to hospitals, in which field there is demand for extension of facilities, as to schools, universities and colleges, municipal, provincial and dominion buildings, and in fact the practically unlimited field of construction. Nothing conceivably is so lacking in the country to date, and nothing can awaken and sustain a sense of civic pride, promote and sustain a desire for family betterment than availability of and contact with those amenities of life so pitifully few, so greatly appreciated and stimulating when available, and so easily added to otherwise drab and uninspiring plans at a mere fraction of the whole cost.

But even above the desirability of the cultural aspect as it is, is that of measures to promote the safety and health of the population, particularly the children. Mention has been made of community centres. These offer a means of providing for health centres. But safe parks and playgrounds in communities meet another need, in that they provide open spaces in which people may relax, and where children may gather and play in safety. The enlargement of these facilities in the form of provincial and national parks and playgrounds has been attended with such success as to warrant their continued development, as with the continuance of the present level of production and employment they can and will be made use of by all the population, in addition to providing attraction to the tourists from other countries, particularly from the United States.

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### C. INFORMATION REQUIRED FOR THE SELECTION AND RATING OF PROJECTS IN A NATIONAL POST-WAR RESERVE

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#### Report on Trial Draft of Project Questionnaire

The terms of reference of the Subcommittee on Post-War Construction Projects suggested specific phases of the problem as requiring careful consideration. One of these was: *What standards should be applied in the study of specific projects in determining their place in the program.*

The questionnaire drawn up as a preliminary was intended to secure the first essentials of information which would permit certain important questions to be answered:—

(a) A description and analysis of the project is required in detail (apart altogether from whether engineers' reports are attached), and this schedule serves as a guide for the details involved.

(b) The projects should be related to the needs and resources of the community for which it is desired, not presented *in vacuo*.

(c) It is vital to assess the importance of the project in terms of size, and in terms of its economic and social revenue.

(d) It is of primary importance to direct the attention of the sponsors of a project to the finances available for the project over at least the minimum planning period.

(e) The assembly of all information along more or less standardized lines is necessary if reasonable decisions as to priority or sequence are to be reached.

Much work in the matter of specifications and collection of information would probably remain to be organized by the body set up as the national co-ordinating unit. It is assumed, in other words, that subsidiary schedules might develop certain matters, more particularly the suitability of the project for financial assistance from federal sources, and the relation of the project over a period of years to revenue sources in the area concerned. It is also to be assumed that such schedules would probably not be put to effective use or be adequately filled without assistance and interpretation from representatives of the central co-ordinating body.

The questionnaire discussed herein is not, therefore, to be considered complete. It has, however, been given widespread circulation, and has received the benefit of comments from many sources, which are brought together herein. In its final form the schedule should be somewhat more positive, and directed to the establishment of definite criteria, classifications, and priority ratings.

### CONSIDERATIONS FOR EVALUATING PROJECTS

#### *General*

1. Will the project increase directly or indirectly the economic or industrial efficiency of the region concerned (or in the country generally)? Give details.

2. Has the project special relationship to additional works which may be necessary for the re-adaptation of industrial plant or other facilities of the district from wartime to peacetime uses? Give details.

3. Is the project concerned with amenities which increase productivity or which help to produce a revenue indirectly (such as highways, waterways, pipelines or other transport facilities, communication facilities, certain conservation or land drainage measures, etc.)?

4. Is the project concerned with new construction, additional works, or maintenance or repairs deferred owing to the war?

5. Will the project contribute to the welfare of the community (e.g. in the form of recreational, educational, cultural, public health facilities, etc.)? Give details.

6. (a) To what extent are locally produced materials and equipment available to project? (b) Will the project compete with existing local industries?

7. In what other ways, if any, is the project of particular relevance or importance in this particular area?

#### *Labour and Employment*

8. What employment opportunities does the project offer during and after construction (a) for skilled labour, (b) for semi-skilled labour, (c) for unskilled labour?

9. What is its relationship to probable unemployment in the region? Will it absorb labour previously engaged on war work?

10. What are the local circumstances as to labour supply available for the project? Is labour supply adequate or will extra labour be required? Has local labour other part-time employment?

11. What is the estimated labour cost of the project, (a) in respect of labour from local sources, and (b) other sources? (See Financial).

#### *Financial*

12. What is the total estimated cost? State date on which estimates are based. State time required to carry out project.

13. Is the project financed, if so, how? Will funds be required beyond one fiscal year? Is assistance required in the way of loans or credits?



14. Give details of the most desirable building and financing plan in respect of timing, for a construction period of up to five years.

#### SUMMARY OF ESTIMATED EXPENDITURE

Cost Items	1	2	3	4	5	Balance needed to complete project
(a) Land .....						
(b) Labour .....						
(c) Materials .....						
(d) Equipment .....						
(e) Administration .....						
Total .....						

15. Will the project be maintained after completion by municipality, province, Dominion or other body?

16. Is provincial, municipal or private financing available? Give details.

17. To what extent is the project self-liquidating?

#### *Technical*

18. Has the project been subjected to engineering or other technical study and report? If so, attach copy of study or report.

19. Can an engineering or technical report be furnished, if requested? (If so, such report or reports should provide answers to the questions immediately following.)

20. What procedure has been followed in arriving at the estimate of costs?

21. What length of time will be required to complete all necessary plans and specifications?

22. Can work be undertaken promptly once the plans are completed? What preparatory work can be undertaken prior to completion of plans and specifications?

23. How much land is required? Is the land yet acquired? Any other property rights to be acquired?

#### *Legal (Property).*

24. Is land public-owned or private property? Can land required, if private, be obtained by exchange for public-owned land?

25. Are enabling legislation or by-laws, or ordinances required? Have expropriation procedures been cleared? Does project conform to an existing or projected town, city, or regional plan?

#### *Grants-in-Aid.*

26. If a grant-in-aid is indicated, what controls are to be set up in relation to:—

(a) technical specifications, supervision, and inspection during construction, etc.?

(b) labour conditions?

(c) expenditure of funds provided for the project?

(d) maintenance after completion of the project?

## D. THE ASSEMBLY AND OPERATION OF A POST-WAR INVESTMENT RESERVE: FUNCTIONS OF A NATIONAL CO-ORDINATING AGENCY

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It is highly important to make a detailed appraisal of the exact techniques involved in mobilizing a national reserve of projects; and, therefore, of the functions of the Dominion body set up to achieve this result. Current discussion invariably devotes most of the time to broad suggestions that there should be some kind of a co-ordinating body; or else to the great volume and variety of works projects waiting to be done, which ought to be assembled for the post-war period—or alternatively ought to be financed by the federal government. What is needed, however, is an examination of the precise administrative and technical procedures which the Dominion agency has to work out.

An outline of these functions is listed on another page. It needs to be filled in with further explanation and detail. It is possible to summarize, however, *the essential achievements which must be expected from the organization*. This kind of appraisal is necessary in advance because, it must be emphasized, most of these functions are new for Canada. Moreover, a critical part of the post-war task depends on them.

### ***Co-ordination and Effective Assembly of Information***

This has to be done, at least in the first instance, on the federal level; and it must be done completely. An idea of the nature of this can be gained from a glance at a list of federal government departments and other agencies who should be able to make contributions to the Reserve. Even these federal government bodies, it should be noted, will need regional agents or field staff if they do not already have them.

It is important to realize that the information required is not necessarily the kind that involves re-assessment of the estimates normally made by departments, or organizations such as the Canadian National Railways. The board is not to be a species of super planning body, supposed to know something about all the inner workings of all departments and public services, and able to frame their projections of possible activity better than they can themselves. Its job is to clarify information respecting projects on strictly comparable bases in order that it may have relevant and working criteria on which to assess the place of projects in the post-war construction program. It is important that the development of such standard methods, the extension of such methods to the provincial, the municipal and the private construction field be kept in mind, together with the possibility, if not the probability, of similar standardization being utilized by provincial, municipal and private development fields.

The nucleus of a standard form for securing this information has been drawn up by the Subcommittee. (pp. 24 and 25.)

### ***Promotion of the Advance Budgeting Idea***

The Board has a distinctive educational job in making clear and getting adopted the anticipation of needs or possibilities over a fairly long period of years. It may encounter considerable difficulty in breaking down the existing routines and pre-suppositions based on annual accounting. Essentially what is to be developed is the idea of the "double budget".

(a) One which relates to ordinary current needs and activities (which in wartime will presumably be only those which are essential), and which could



continue on the orthodox lines of estimates and clearance of accounts from year to year. This budget would mean a standing expenditure out of current revenue corresponding to present Dominion Main Estimates.

(b) A long-term budget would be designed to cover normal capital expenditures and emergency measures taken in times of depression to fight unemployment or stimulate trade. It should envisage long-period, flexible, or postponable needs or developments, based on broad economic considerations and not on the particular exigencies of any department, etc; these must obviously be planned over a considerable period. It may be found desirable to separate this extraordinary or long-term budget into two parts:

(i) Projects not required immediately, but certain to be required sooner or later, and which could be accelerated.

(ii) Developments which may be much more tentative or experimental, and which in the ordinary way might not be given enough attention to bring them into any state of potential readiness.

Some precedents for this type of budgeting exist in such forms as the Public Works Construction Act or the Special Supplementary Estimates of the Dominion Parliament during the 1930's, but it would be necessary to make completely clear their adaptation to the purpose (i.e. the expenditures could not be committed to any regular or mechanical rate of outlay).

### ***Actual Administrative Routines of Programming***

The concept of "preparedness budgeting" is one thing; its actual implementation in administrative terms is another. It will require explanatory memoranda and regulations, statistical forms, and almost certainly advisory or liaison work by some appropriate members of the Board's staff. It is assumed that the Board, rather than building up an enormous staff of people who will try to impose these routines on the various cooperating agencies, would try to work through a system under which each of the departments has personnel within its own offices who are acquainted with what is required. The two accompanying forms (A and B) attached are merely examples which it is worth examining for illustrative purposes, and which happen to specify cities, but might easily specify agencies or departments, etc. A point to be noted is the elaborate classification of the degree of readiness to which a particular project measures up.

### ***Geographical Distribution***

It will not be the function of the Board to decide exactly what work should be started on a national scale. This decision must be made by the government as a whole, though obviously it will have to be made fairly soon after the end of hostilities. It may not even be the function of the Board to decide the total volume of work which ought to be initiated; certainly its immediate task is to build up as large a program as possible. (It will probably prove much harder to assemble a really sizeable list of sound projects than to take this list beyond any conceivable points of magnitude). It must be one of the tasks of the Board to assemble information and to advise on the geographical location of projects. This must be related to the distribution of population and industry; and accordingly arrangements must be made to secure effective use of all statistical and other information on this matter. But in any case, most projects have a definite location. A good many will be flexible as to site, and some must certainly be of a character such that they can be duplicated for construction in a great number of different places. But others will inevitably be projected for one district or centre only. Enough information must go with each project to assess its relevance to the population pattern of the country.

A. TYPE OF FORM FOR EACH INDIVIDUAL PROJECT  
(Illustrative)

Ref. No.....

1. Location

Date .....

2. Department, Bureau, Division, etc.,

3. Description of Project

(a) Physical description

(b) Purpose

4. Need for project

5. Total estimated cost (including site)
6. Cost of site
7. Future burden resulting from project
  - (a) Annual cost: maintenance and repair
  - (b) Annual estimated cost of new staff requirements
  - (c) Future expenditures for equipment or utilities not included in project cost
8. Estimated construction period
9. Status of site—acquisition
10. Status of plans and specifications
11. Proposed manner of construction  
(contract or day labour)
12. Year proposed for construction

ENDORSEMENT

(Do not fill in below this line)

13. Priority rating
14. Year recommended for construction
15. Recommended financing of construction:
  - General revenue
  - Service charges
  - Utility revenues
  - General obligation bonds
  - Federal aid
  - Provincial aid
  - Revenue bonds
  - Special assessment bonds
  - Working capital or revolving fund
  - Special reserves for capital expenditures
  - Total



**B. TYPE OF FORM FOR INVENTORIES OR SUMMARIES**  
(Illustrative)

Project	Method of Financing (a)	Estimated Total Cost of Construction: Estimated Yearly Expenditures								Status of Plans (c)	Remarks
		Total Estimated cost (b).	Total for 5-year plan	Fiscal Year							
				I	II	III	IV	V	Others		

Total from

Current Revenues

Municipal Bonds: Land

“ “ Construction

Special Funds

---

Grand Totals

(a) *Method of Financing*: Symbols to indicate (i) current revenues ((ii) general bonds (iii) special assessments (iv) subsidies, etc.

(b) *Estimated Costs*: Distinction to be made between land (L) and Construction (C).

(c) *Status of Plans*: Degree of preparedness should be carefully detailed:—

1. Preliminary estimate only.
2. Surveys begun.
3. Surveys completed.
4. Work on plans not begun.
5. Sketch plans in preparation.
6. Sketch plans completed.
7. Detail plans in preparation.
8. Detail plans completed.
9. Detail plans and specifications completed.

## DETAILED TASKS TO BE UNDERTAKEN

### 1. *Administrative.*

(a) Information. Records, proper scheduling and collation of projects in order to know dimensions, location, types, etc.

(b) Assistance in standardizing methods of planning and assembling projects.

(c) Review and appraisal of projects (by broad rather than detailed criteria).

(d) Coordination between federal agencies; coordination of federally supported proposals with projects at all other levels of government.

(e) Determination of priorities.

### 2. *Technical*

(a) Engineers' reports; other aspects of physical construction.

(b) Town, city and site planning. (Coordination with Town Planning agency).

(c) Relation of a project to other facilities and capital works in the area concerned.

(d) Standards: economic and social advantages of the projects.

### 3. *Financial*

(a) Financial resources available in the area concerned.

(b) Development of a capital budget. The "double budget" principle.

(c) Particular method of financing (tax revenue, special assessments, income from project, loans).

(d) Eligibility or otherwise for federal (or provincial) grants-in-aid.

NOTE: The information supplied for each project, in conformity with the questions laid down in the Subcommittee's standard form, *Considerations for Evaluating Projects*, would provide the unit data for compilations under each of the above heads.

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## E. A MASTER CLASSIFICATION OR INDEX OF POST-WAR PROJECTS

Lists of possible postwar construction projects have been drawn up from all kinds of sources. Most of them are mere catalogues of suggestions, without any particular order, or any attempt at analysing their functional relation to the most important postwar problems, or to the structure of administration. Much more than a mere list is required.

It is essential first to work out a classification of the main types or spheres of construction and development enterprises. This classification should concentrate primarily on function, the grouping of projects according to the role which they play in the economy generally. In the first instance this grouping should be made irrespective of whether these activities are normally public or private; the immediate purpose is to see them in relation to the total problem of national (and, for that matter, international) economic development in postwar circumstances. Distinctions and boundaries of convention and of past precedents are likely to be unhelpful, and may actually be handicaps. It is



necessary to keep in mind the enormous acceleration not only of scientific discovery and technological development, but of social objective and administrative innovations. The question of exactly which group or agency in the community should take the initiative in organizing any particular project should not be determined, beforehand, but in the light of a careful appraisal of the function of the project, or its contribution to employment, economic opportunity, social welfare, etc.

When fully worked out, there should be gathered together a fully detailed list of all feasible projects under each head. There should then be a second catalogue, or policy manual, analysing and subdividing these various projects according to their characteristics, on points such as the following:—

(a) *The technical components of the project.* The amount and type of working force required (assuming standards of efficiency, not of relief and the maximization of labour-contents), engineering features, kinds of materials and equipment required; and so on.

(b) *Administration.* The parties both governmental and private who (i) are legally involved, (ii) who should be most desirably involved in its sponsorship and completion. The suitability of the project for complete federal undertaking, provincial, municipal, or some combination, is clearly of special importance. This again ought to be determined in the initial planning stage on the grounds of the most efficient method of serving the public interest, of getting results sufficiently clearly to be of some effect in the period of postwar transition, and of desirable fiscal policy. In making the first appraisal, there should be no inhibition against recommending, e.g., that a project which has commonly been carried out by a municipal government should be carried out for postwar purposes by the federal government, or that a sphere which has largely been left to private enterprise should be entered upon on some reasonable basis by a government agency. Nothing short of this detached review will get decisions made sufficiently clearly for an adequate program to be worked out.

(c) *Principles of financing.* If the preceding features are assessed, the determination of the most desirable and effective financial arrangements will largely follow as a matter of logic. It must be emphasized here, however, that the main question of finance is not whether a project is a fit subject for a federal grant-in-aid, and how much that grant-in-aid should be, but the proportion of long-term capital budgets by all the parties concerned, whether singly or in partnership.

The present memorandum is put forward simply as a beginning, in which the references to the second part of the task in particular are illustrative rather than comprehensive. As soon as possible two separate documents should be compiled on the basis of statements such as the present:

1. Classified master index or categories of postwar projects.

2. Principles of administration and financing (involving the distribution of these projects between different levels of government, different types of financing, etc.).

The present list is drawn up on the assumption that only Dominion-sponsored or Dominion-aided projects will be considered in the first instance but it is perhaps as well in the preliminary list not to draw any rigid limitations at all. Needless to say, there will be considerable overlapping between the items included under the various categories. This is bound to happen, and it may even be desirable when a fully completed index is made up to list certain items deliberately under more than one category head. Integration is one of the ultimate functions of the national co-ordinating agency. It will have to assess the links between projects in particular areas. The first task is to draw up a detailed picture of all the possibilities.

## I. PUBLIC WORKS AND BUILDINGS

Public works in the narrow sense of the term, so far as the Dominion Government is concerned, are defined under the Public Works Act (1927) in a manner which would be quite incompatible with the definition which ought to be applied to the functions of a Constructive Reserve Commission, National Development Board, or whatever other title is given to the agency for mobilizing the postwar works reserve. This point should be noted since there will almost inevitably be confusion at the outset on the whole nature of the projects contemplated. If the term "public works" is to be used at all, it must mean projects in which the Dominion Government desires, or is entitled to have, an interest; and it may be necessary to specify whether that interest is to be interpreted as financial or administrative or both. The Department of Public Works is concerned only with properties *belonging to Canada*, and with works specifically *under the full control* of the Minister of Public Works. The residual clauses of the detailed list reads as follows:—

"All other property which now belongs to Canada" and other works for which any public money is voted "except works for which money has been appropriated as a subsidy only".

And this would be capable of considerable extension; but it is still doubtful if it gives an appropriate formula. Also one of the items is ordnance property: if this includes plants at present controlled by Crown companies, it would naturally make this a larger category. Other items definitely specified are:—

- i. Public buildings.
- ii. Maintenance of Government buildings.
- iii. Roads.
- iv. Works for facilitating the transmission of timber.
- v. Bridges.
- vi. Harbours.
- vii. Navigational works.
- viii. Telegraph lines.

All these, of course, refer only to property owned by the Dominion Government.

Unquestionably, there is a large group of projects included even within these circumscribed limits. They should be listed along with other projects, and it is very necessary to examine how far certain desirable expansions, *e.g.*, of types of Government buildings, might be in order, if there is any possibility of their development being handicapped by existing statutory limitations. The probability is, however, that enterprises under the direction of the Department of Public Works should be properly integrated into the total reserve of projects, along with others. Again, the first necessity is an adequate review of possibilities, decisions as to who shall actually carry them out being left till later.

Because the Department of Public Works has much experience in many fields of construction work, and because it is already served by a field staff covering the various parts of the country, it is probable that its detailed list of projects might be one of the first to be compiled, and much might be learned from it. It would seem to be indicated immediately, however, that a conference could be profitably called of the field representatives of all Dominion Government departments which maintain such offices. This personnel should be the first to be fully apprised of the need for balanced consideration of all types of projects, and of wide definition in the initial stages.



## II. CONSERVATION AND RESOURCES

The special report of the Subcommittee on Conservation and Natural Resources should be consulted for its bearing on the fields below. It is important to bear in mind that the whole subject of conservation and natural resources has many ramifications. It must be considered as the subject of policies not only for (a) short-term or transitional employment projects, but (b) continuous measures for long-term development, utilization, and production. Certain other reminders are in order:—

(a) The co-operation and collaboration of provincial governments is essential in working out a satisfactory national program, since the great bulk of resources are under provincial jurisdiction.

(b) The superiority of regional planning as against piece-meal or unco-ordinated enterprises cannot be overemphasized. It is not enough to have a list of forestry projects, water conservation projects, programs of power development, etc. They must be built together in relation to each other, and also planned on a regional basis. The dependency of so many resources (including agriculture) on the major river systems of the country is so great that there is special ground for considering watersheds as setting the proper framework for regional programs. It is necessary to consider, for example, whether the proper procedure should be to extend the P.F.R.A. to *e.g.*, British Columbia; or rather to absorb the P.F.R.A. techniques into the work of a Western Water Board which would act as a programming agency for all developments from agriculture to power in the three Prairie Provinces.

(c) Construction projects are only part of a sound conservation program. Other parts are (i) training programs for personnel working on the projects, (ii) educational and information activities, (iii) managerial and advisory services, (iv) many-sided research and survey requisites. These may, of course, be regarded as employment projects in a special sense: they provide important and valuable outlets for white-collar technical and professional workers of all kinds.

(d) Most or all of the resources are based on industries. In a number of fields the best relationship between governmental and industrial participation may be a matter for judgment. Development of projects should certainly not be allowed to take place within separate compartments. The objective should be a partnership (*e.g.*, between logging companies and the government, between prospectors and public surveys, between mining towns and state regulation) which has mutual advantage. The relation should not be one of simple subsidy from government sources, without the undertaking of any obligations by industry in return.

### 1. *Soil Conservation.*

Appropriate forestry projects and other planting. Establishment of pasture and grazing lands. Methods of cultivation. (As demonstration projects or otherwise). Some forms of reclamation, drainage, etc.

### 2. *Water Conservation and Utilization*

Dams and storage projects (large and small).

River bank protection; other forms of stream-flow control.

Projects for the avoidance or elimination of stream pollution.

Related afforestation techniques.

Irrigation schemes.

The whole of the P.F.R.A. experience is relevant here. It is important to note the implications of regional development (referred to elsewhere).

### 3. *Electric Power*

(a) Basic development for the generation of power (experience of Dominion Water Power and Power Bureau fundamental here).

(b) Projects for co-ordination of existing power facilities, co-ordination in use of different types of fuel, etc.

(c) Rural electrification. Unquestionably one of the key projects of post-war economic development in Canada. Fortunately, a manual for the close study of this is provided in the current report of the Manitoba Electrification Enquiry Commission. This merits study from all angles.

(d) Electric power in relation to industry and urban decentralization. This may have rural as well as urban application but has clearest relation to the future pattern of our most heavily concentrated industrial areas.

### 4. *Forestry Resources*

(a) Scientific cutting and forestry management: techniques necessary for getting the whole of this natural resource on to a renewable crop basis. The negative side of this might be special measures to eliminate the wastes and hazards and derelict areas already produced through unsystematic exploitation in the past.

(b) Forestry protection: measures for protection against fire, pests, etc. (The Forestry Branch of the Department of Mines and Resources is fully aware of all the requisites of a proper national program.)

Recommendations have already been made, by the Subcommittee on Conservation and from other sources, on types of training and employment projects under this head. It is worth noting that the emphasis on planning them for demobilized men may be misplaced. It is quite true that a number of the men now in the armed forces will be conditioned for the kind of open-air work which these projects will involve; but, on the other hand, many of them especially those who are acquiring technical training, may want to go back on an industrial job. The projects should, therefore, be oriented towards young people and other workers in munitions plants, etc., who might be more interested in a change in working conditions; and also to present working personnel in forestry industries, or workers who may want to go into those industries later.

(c) Road development appropriate to forestry conservation purposes.

This type of road building is apt to be forgotten in the discussion and planning of the more familiar kind of road programs. It is imperative to aid in fire protection, to bring within reach areas not economically accessible, and to facilitate a systematic plan of cutting. It may also raise different questions on the division between public and private participation.

### 5. *Mineral Resources*

The situation with regard to mining is different because exploitation has been much more completely left to private enterprise, and because minerals are exhaustible assets, unlike forestry which can be renewable if the proper precautions are taken. The circumstances are such that this field mostly belongs under industry, assistance to industry (Category VIII).

(a) Assistance in discovery; prospecting, etc.

Direct subsidies to prospectors have been proposed. There may be better forms of assistance, however, e.g., a substantially subsidized air service to mining and development areas. Besides being one of the most effective forms of assistance, it serves (along with forestry surveys, reconnaissance service, etc.) as one of the best ways of maintaining a corps of experienced air pilots in the future. Other possibilities are assistance through the provision of geological information; and the subsidized provision of assay and mineral test services.



(b) Regulation of existing mining areas. Not only the past history of ghost towns left after mineral strikes had been exhausted, but the rapid and diverse development directly due to war needs, counsel the wisdom of considering regulations or other requirements which will help to stabilize the communities growing up in mineral development areas. Projects for housing, recreation, welfare facilities, etc., which would make mining towns more attractive are badly needed and long overdue. Procedures such as have been developed, for example, in Sweden to ensure special retirement or dismissal funds as part of a charge on a mine, may have some effect in helping to attract employment to these areas which should not be disregarded.

## 6. *Wild Life*

(a) Fisheries are a special field. Information is available on marine fisheries from the Department of Fisheries; on inland fisheries from the Department of Mines and Resources. The volume of works projects available is probably quite small, but the building of fish hatcheries and other necessary conservation equipment should be accorded its proper share of importance.

(b) Game and birds. Presumably related to forestry and water projects, also to tourist developments.

(c) Fur-bearing animals. These have special importance in relation to the Indian population; also to regime of river development in some areas, the Saskatchewan River being a particular example in relation to the Manitoba (muskrat) project.

## 7. *Parks, Tourists, Vacation and Recreation Facilities*

This field is widely publicized but still needs a careful survey which would give somewhat better balance to its various features. The most pronounced tendency is to concentrate attention on (a) the national parks, not all of which are easily accessible to a large proportion of the population, and (b) on the commercial aspects of the tourist industry, and its relation to visitors from outside Canada. Aspects which could desirably receive more attention are:

(a) Provision of hostels, tourist camps, swimming pools, buildings for summer schools, film units, educational buildings, and other facilities to be made available free or at modest cost for the lower-income groups from Canada and elsewhere. Developments in Britain, continental Europe, and in certain States such as New Hampshire, in the White Mountain areas, are relevant here.

(b) Recreation centres on a smaller scale and wider in distribution. This applies particularly to cities, where the field properly is part of town and community planning. But it is relevant also for the future development of country areas immediately contiguous to the main cities. It may be that many of these projects should be municipal or provincial; but there are channels of encouragement from federal government sources which should not be ignored.

(c) Handicrafts and cultural activities. (An extensive survey of the wide and diverse field of arts and crafts has been made by the Inter-departmental Committee on Canadian Homecrafts, whose report is available. It is apt, however, to be a field which eludes generalization. Some of the projects would be primarily educational, or possibly part of a training program; others may be concerned with small-scale local industries; others with the development of straightforward recreational facilities. The aggregate amount of employment offered may possibly be small; but, on the other hand, these projects have the advantage of employing people immediately with the minimum of equipment and materials.)

### III. TRANSPORT AND COMMUNICATION FACILITIES

#### 1. Roads

This is a very familiar field; and one in which the provinces in particular have planned already considerable advances. What is needed, however, is a careful distinction between different types of roads and the services they perform; and above all, some attempt to relate all road building programs in the country to a master plan of national communications. Some of the types which may be distinguished are as follows:—

(a) National highways, more particularly the Trans-Canada highway and branches.

(b) Special highways, of national importance, such as the Alaska highway.

(c) Secondary, but first-grade highways, mostly provincial.

(d) Service roads of all kinds, and particularly those for farm areas, forestry areas, etc.

(e) Special problems such as those of grade crossings, bridges, etc.

(f) Arterial roads, by-pass roads and other roads of major importance for cities.

(g) Municipal road maintenance, side-walks, etc.

It may be important in assessing this field to distinguish carefully between the experience of roads built as relief projects, and those built as part of normal road development.

#### 2. Railways

The Canadian National Railways should be able to supply extremely important information on their deferred maintenance both of track and rolling stock, probable future requirements; and possible developments of other kinds which may make for greater economy or efficiency in post-war circumstances.

It must be remembered that the railway companies are concerned with many other aspects of transportation besides the operation of the freight and passenger railway transport itself. The relation of the development programs of the two main railway systems to each other, and to the other developing network of communications, should not be regarded as out of court. This is particularly apposite in relation to road service and to air developments.

#### 3. Shipbuilding

The government is heavily concerned with shipbuilding to-day, and must continue to be so in the post-war transitional period. It is altogether likely that shipping will be as great a factor in the immediate reconstruction possibilities after this war as it was after the last. Canada will have to consider, preferably on some kind of an international basis, the development of her merchant marine.

The question of new and special shipping routes may also have to be considered.

#### 4. Waterways

(a) Navigation (inland waterways, including canals, locks, etc.). Department of Public Works has ample experience of this.

(b) Water conservation. Relation to irrigation, flood control, etc., must be considered.

(c) Power development. Similarly may involve certain special navigation requisites.



## 5. *Ports, Harbour Facilities, Ocean Navigation*

### 6. *Air Transport*

Committee on Civil Aviation engaged in surveying this field. May need supplementary report on actual construction projects involved; more particularly if this Committee concerns itself mainly with commercial aspects of air transport in the future.

### 7. *Telephones, Cable Systems, etc.*

Many of these are privately owned; some systems provincially. But all important utilities should be among the easy bodies to draw into collaboration with government programs.

### 8. *Radio and Related Systems.*

C.B.C. is clearly within the Dominion government framework. Possible role of new developments, e.g., television, should not be forgotten.

### 9. *Terminal Storage and Market-Place Facilities.*

These are strategic spheres of such importance, affecting many different aspects of both urban and rural development, that they should be given special consideration.

#### (a) *Urban terminal areas.*

In any thoroughgoing city master plan, the complete reorganization of the main terminal centres may be well worth while contemplating. Railway sidings, storage yards, etc. are among the most frequent causes of blighted areas. Much expensive and protracted switching and trans-shipment difficulties may be eliminated. Technical changes and developments in the mass handling of commodities call for revisions of our concepts of warehousing. Properly equipped and planned market centres would have the advantage of providing a centre for direct marketing by farmers and cheaper produce for consumers.

#### (b) *Agricultural and rural centres.*

There is need for a new approach to the facilities necessary to help farmers with their marketing problems, and relating them to processing plants more effectively. Units to be considered include self-service, refrigeration plants, dehydration, canning and other processing plants.

## IV. HOUSING AND COMMUNITY PLANNING

This whole field is the subject of the work of a specific subcommittee whose report should be consulted.

Housing is a particularly complicated administrative problem because federal, provincial and municipal governments are all equally involved. It may be added that private corporations, building societies, etc., are also interested; and again that there are important possibilities of co-operative housing. For the moment a simple set of headings will indicate the kind of classification that is to be worked out on:

1. Town planning and related developments.
2. Home ownership (i.e., measures to facilitate the building of houses by persons who propose to buy them).
3. Economic-rental housing (i.e., houses built for tenants, under fiscal and administrative arrangements which make the programs self-supporting or self-liquidating without a subsidy).

4. Subsidized low-rental housing (i.e., housing for those groups who cannot afford to pay rent which would cover all the costs of building).
5. Farm homes and rural housing.
6. Home improvement, urban and rural.
7. Small town and rural community centres and related projects.
8. Demonstration projects related to housing, town planning, home equipment, etc.

## V. SOCIAL AND WELFARE FACILITIES

(a) Schools, colleges, technical schools, training schools, etc. It is important to note that there are two groups (i) regular schools and colleges (mainly under provincial jurisdiction), (ii) schools and other institutions which may or may not be provincial, but which will certainly be required to deal with the training needs of the transition period. Whatever the requirements for ordinary school buildings (which may be increased if, for instance, special arrangements are made to retain children in school), there may be a special priority on training facilities, including technical schools.

(b) Employment Offices. The Unemployment Insurance Commission will require a considerable number, and may have a program for new buildings. These also will be important in the transition period if they could be built in time. In any case, they should be planned with forethought as to other related services which they might perform. They might, for example, house some types of training units, vocational advisory staffs, committee rooms for the meetings of local advisory committees, and so forth. With comprehensive social insurance in mind, plans should be made to develop them as social insurance administrative centres rather than for functions limited only to placement and training.

- (c) Parks, playgrounds, recreational facilities.
- (d) Hospitals, sanatoria, clinics, child welfare centres, etc.
- (e) Day nurseries, crèches, etc.
- (f) Libraries, museums, administration centres for various purposes.
- (g) Gymnasias, swimming pools, physical fitness centres.

It may be desirable to draw up different lists under this head, separating urban and rural facilities. Projects particularly applicable to rural conditions have been mentioned elsewhere (e.g., farm housing, community centres, etc). There would be various possible developments hinging on rural electrification; another field which should be specially considered for farm application is to improve provision of domestic water supply.

## VI. RESEARCH, SURVEYS, PROJECT MAPPING

One of the clear implications of a great many of the projects under preceding categories is advance investigation of various kinds, the preparation of blue-prints, surveys and designs, and what for want of a better description may be called project mapping in general. If time and staff could be found within the exigencies of the war effort, a fully planned development programme would be initiated through surveys of all the fields in which there is little experience, or little past provision of need: some of these surveys would be social and economic as well as technical. In this they provide employment for the non-manual occupations, but they should not be regarded as merely employment projects, any more than the construction projects should be evaluated merely as work-absorbing projects. In some cases, the lining up of a construction project may involve preliminary investigational work so intimately that it cannot be



separated from the physical project itself; but it will probably be desirable to maintain a separate category for surveys and studies which may properly be regarded as projects in themselves. Only a few varied examples are listed here:—

(i) Surveys of resources, or areas in need of conservation measures—forestry, settlement areas, soil content, etc. Special examples of surveys at present under way are the Ganaraska watershed, Cumberland County in Nova Scotia. Provinces have been asked to indicate critical forestry areas. There is probably need for co-ordination and advice in techniques.

(ii) Resources surveys of new regions; more particularly the Yukon-Alaska or “North Pacific” area.

(iii) St. Lawrence waterways: replanning of flooded areas.

(iv) Plans and designs for housing; community centres, small market centres, etc.

(v) Economic surveys, e.g., of consumers’ markets for durable goods, housing requirements, etc.

Scientific research is a special field in itself. A review of all types of research going in at present, which have some relation to immediate projects of the postwar period, is really called for because of the size and the technical intricacies of this subject. The more obvious fields relate to new uses for agricultural products; industrial applications of new methods of using wood, extraction of minerals, etc. Special attention should be given, however, to such directly practical developments as new technologies which will reduce building costs, and pilot plants for the small-scale application of applied research.

## VII. TRAINING, EDUCATIONAL, CULTURAL FACILITIES

Training projects proper are a separate field. But the opportunity should not be lost to associate training with constructive projects wherever possible. The same may be true of certain forms of adult education, e.g., the use of the rural community centre as a place in which the National Film Board’s 16-mm. films may be shown.

Consideration should be given to the applicability to Canadian postwar projects of the cultural sections of the W.P.A. programs established in the United States (i.e., projects for painters, musicians, writers, etc.).

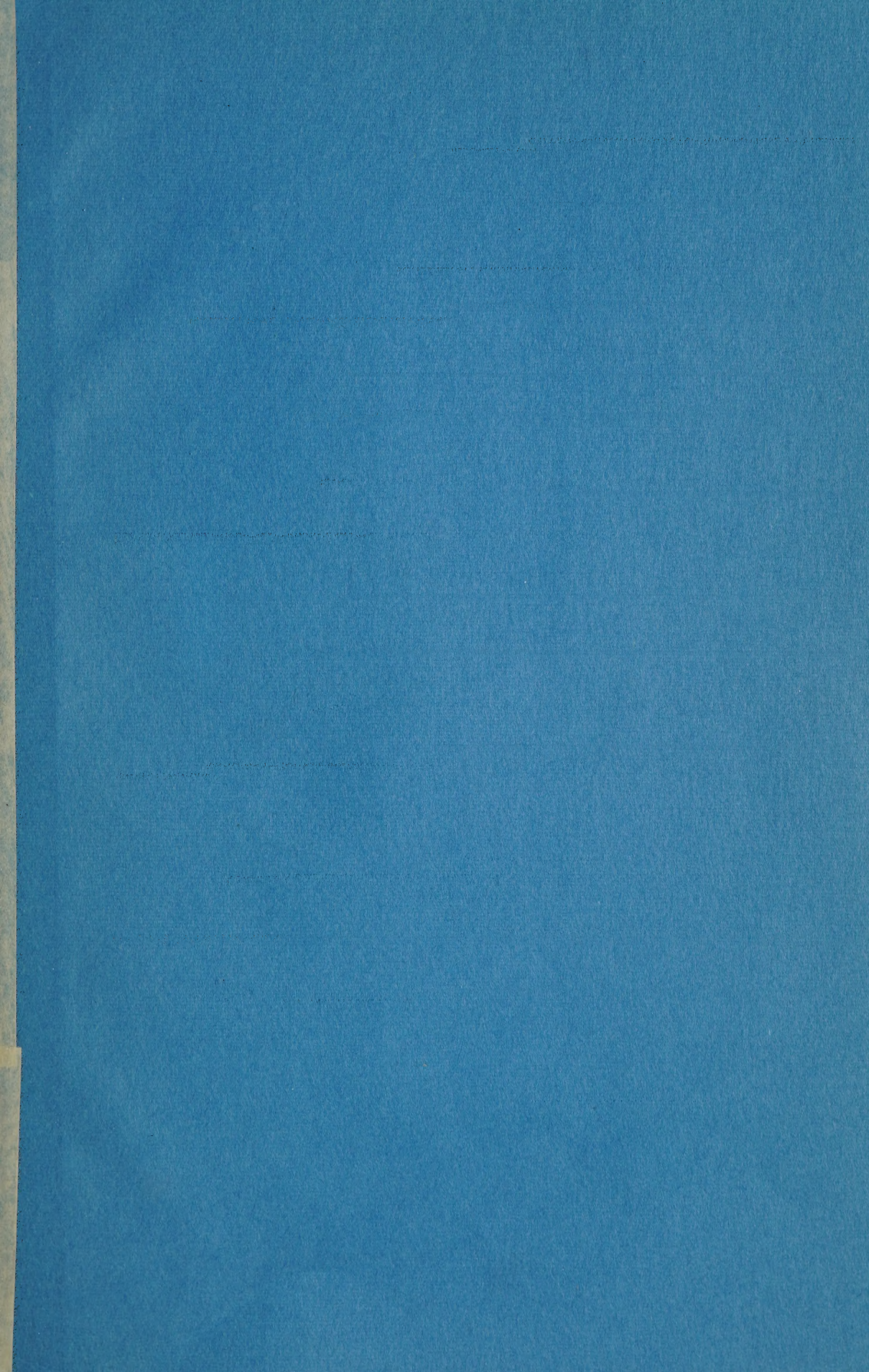
## VIII. INDUSTRIAL RECONVERSION

This heading should primarily be restricted only to government-sponsored facilities directly related to the relocation or reconversion of industrial plants. What the policy is to be in this field is not yet known, but possibilities should be carefully canvassed.

It is very important to point out that the whole of the national postwar programs must have relation to the actual distribution of the population, more particularly of the working population at present in war plants or located in training centres. Studies will be necessary not only of the physical aspects of present industrial location, but of information on the numbers and types of workers at present located in areas of new industrial concentration. As an administrative matter some of this may call merely for proper liaison between the National Development Board and the Employment Service. On the other hand, there may actually be certain projects involving the moving of plants, transference of housing facilities and of workers.













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